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a reflective surface attached to said vertical comb drive, wherein said vertical comb drive comprises a first array of stationary elements and a second array of moving elements correspondingly interspersed with said first array, said reflective surface being attached to said second array and defining a plane;

said vertical comb drive, when actuated, displacing said surface in a direction orthogonal to the plane thereof.

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16. The deformable mirror according to claim 1, wherein said vertical electrostatic comb drive comprises plurality of cavities and teeth interdigitally mounted with said cavities, said reflective surface being attached to said teeth.

19. A method of deforming a mirror comprising:

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attaching the mirror to a vertical <u>electrostatic</u> comb actuator, <u>said mirror</u> <u>defining a plane</u>; and

applying a voltage to the vertical comb actuator to displace said mirror in a direction orthogonal to the plane thereof.

20. The method according to claim 19, wherein said vertical electrostatic comb drive comprises an array of vertical comb actuators and said step of applying individually applies voltage to each of said vertical comb actuators.



Please add the following new claims:

21. A displaceable surface comprising:

a vertical electrostatic comb drive;

a surface attached to said vertical comb drive and defining a plane; and

a spring for biasing said vertical comb drive to maintain said reflective surface in an original position absent application of a voltage to said vertical comb drive;

said vertical comb drive, when actuated, displacing said surface in a direction orthogonal to the plane thereof.

22. A displaceable surface comprising:

a vertical electrostatic comb drive; and

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a surface attached to said vertical comb drive, wherein said vertical comb drive comprises a first array of stationary elements and a second array of moving elements correspondingly interspersed with said first array, said surface defining a plane and being attached to said second array;

said vertical electrostatic comb drive, when actuated, displacing said surface in a direction orthogonal to the plane thereof.

23. The displaceable surface of claim 22 wherein the vertical electrostatic comb drive is provided on a substrate and said surface is generally parallel to said substrate.

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24. The displaceable surface of claim 22 wherein said displaceable surface includes plural vertical electrostatic comb drives to which said surface is attached, each said vertical electrostatic comb drive locally displacing said surface in a direction generally orthogonal to a plane generally defined by said surface.

25. The displaceable surface of claim 24 wherein said plural actuators

are driven to tilt said substrate.

26. The displaceable surface of claim 22 further comprising a mirror mounted substantially parallel to said substrate.

- 27. The displaceable surface of claim 22 further comprising a mirror mounted substantially parallel to said substrate.
- 28. The displacable surface according to claim 22, further comprising a layer covering tops of elements of said second array.
- 29. The displacable surface according to claim 28, a spring for suspending said first array relative to said second array, said spring being attached to said layer.
- 30. The displacable surface according to claim 22, wherein said stationary elements and said movable elements are circular.

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- 31. The displacable surface according to claim 22, wherein said stationary elements and said movable elements are planar.
- 32. The displacable surface according to claim 28, wherein said layer is attached directly to said reflective surface.
- 33 The displacable surface according to claim 28, further comprising a post attaching said layer to said reflective surface.
- 34. The displacable surface according to claim 33, wherein said post is in a center of said reflective surface.
- 35. The displacable surface according to claim 22, wherein voltage is applied to each stationary element of said first array individually or each moving element of said second array individually.
- 36. The displacable surface according to claim 22, wherein said vertical comb drive comprises an array of vertical comb actuators.

The displacable surface according to claim 36, means for individually providing voltage to each actuator of said array.

38. The displacable surface according to claim 36, further comprising springs for individually suspending each of said second array of each actuator in said array.

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12